

REMARKS

Claims 28, 30-41 and 47-50 are pending in this application. By this Amendment, claims 47 and 48 are amended for clarity (and are unrelated to issues of patentability).

Entry of the amendments is proper under 37 C.F.R. §1.116 because the amendments: (1) place the application in condition for allowance; (2) do not raise any new issues requiring further search and/or consideration; and/or (3) place the application in better form for appeal, should an appeal be necessary. More specifically, the above amendments are merely for clarity. Entry is thus proper under 37 C.F.R. §1.116.

The Office Action rejects claims 28, 30-41 and 50 under 35 U.S.C. §102(e) by U.S. Patent 6,559,826 to Mendelson et al. (hereafter Mendelson). The Office Action also rejects claims 47-49 under 35 U.S.C. §103(a) over Mendelson in view of U.S. Patent 5,786,801 to Ichise. The rejections are respectfully traversed.

Independent claim 28 recites driving the display, sensing a brightness of the display and adjusting the driving of the display until the display is driven at a predetermined brightness based on the sensed brightness. Independent claim 28 further recites setting an adjusted brightness control code corresponding to the predetermined brightness of the display, wherein the driving includes initially driving the display using a brightness control code provided by a display manufacturer, and wherein setting the adjusted brightness control code includes setting a new brightness control code corresponding to the predetermined brightness, the new brightness control code replacing the brightness control code provided by the display manufacturer.

In at least one non-limiting example, the present specification relates to outputting a same brightness irrespective of product characteristics of different manufacturers. For example, a brightness control code corresponding to a predetermined brightness of the display may be changed to a new brightness control code corresponding to the predetermined brightness of the display. See LCD #B in FIGs. 3 and 6 as well as paragraphs [0042]-[0045] and especially paragraph [0045]. In contrast, Mendelson merely discloses replacing a new updated reference profile. This does not suggest the features relating to the predetermined brightness.

Mendelson does not teach or suggest adjusting the driving of the display until the display is driven at a predetermined brightness and setting an adjusted brightness control code corresponding to the predetermined brightness of the display. The Office Action cites Mendelson's FIG. 11, step 1145 as teaching the claimed setting an adjusted brightness control code. The Office Action specifically states that storing the updated profile means that the brightness control code is set in memory. Applicants respectfully disagree. Mendelson very clearly states that luminance ratios are stored in a memory device for constructing a table and that an update reference profile including the table is stored within the EDID memory device. See col. 16, lines 1-16. Thus, the updated information relates to luminance ratios of the lamps. Mendelson does not teach that the updated information is an adjusted brightness control code corresponding to the predetermined brightness (which is the predetermined brightness of adjusting the display).

Mendelson also very clearly describes that updated information corresponds to luminance ratios. See, for example, col. 16, lines 29-30 discussing "determines the change is relative

contribution of each pair of lamps.” See also col. 16, lines 23-37 discussing “recalculates the luminance ratios based on the new luminance values” and the comparing the luminance ratios to initial ratios to determine the degradation of the lamps. It should also be noted that Mendelson’s disclosure relates to white balance and the adjustment of relative percentage contributions of its red, blue and green intensity components. See col. 1, line 42-col. 2, line 7 and most particularly col. 1, lines 61-63. Mendelson clearly relates to luminance ratios. Mendelson does not suggest the specific features relating to setting an adjusted brightness control code (or to setting a new brightness control code) corresponding to the predetermined brightness of the display.

Additionally, Mendelson does not teach or suggest adjusting the driving of the display until the display is driven at a predetermined brightness based on the sensed brightness. The Office Action cites Mendelson's FIG. 11, steps 1115-1130 for these features. However, the cited section discusses that images are displayed with the lamps set at four relative intensity levels (i.e., maximum or minimum). See col. 15, lines 2-24; and Table 1 at col. 6, lines 57-64. Maximum and minimum are not a predetermined brightness based on a sensed brightness.

Mendelson then discloses that a red image, a green image and a blue image are separately displayed at a relative intensity level as shown in Table 2. However, Mendelson does not include any Table 2. See col. 15, lines 30-45. Mendelson’s disclosed use of “intensity level” relates to “maximum” or “minimum.” See Table 1. Applicants respectfully submit that the driving of a display by using lamps at a maximum or minimum is not driving a display until the display is driven at a predetermined brightness based on the sensed brightness. Mendelson does not

suggest the “until” aspect or the based on the sensed brightness aspect. The maximum or minimum of a lamp is not a predetermined brightness based on the sensed brightness.

The Office Action’s discussion of calculation and display brightness do not correspond to the specific claim features of “until...is driven at a predetermined brightness based on the sensed brightness.” For example, the Office Action appears to state, in an example, that the display is driven at a known voltage level (e.g. V). Then the gamma sensor senses a brightness (e.g. X) and a comparison is made. In this example provided in the Office Action (which is not disclosed in Mendelson), the display is not driven until the display is driven at a predetermined brightness. Rather, the display is driven to a particular voltage (e.g. V). Stated differently, the driving is not until a predetermined brightness based on a sensed brightness.

The Office Action then states that it would be known that when the display is driven at voltage V, the display brightness would be $X + \Delta X$. This is incorrect as different LCDs may be driven at a same voltage (e.g. V) and display different brightnesses. This problem is one problem that the features of the present specification (including the claims) may solve. The Office Action appears to assume a known relationship between voltage and brightness. Applicant believes this is incorrect with respect to different displays, for example. The present application relates to these problems of different voltage/brightness relationships. Mendelson does not teach or suggest adjusting the driving of the display until the display is driven at a predetermined brightness based on the sensed brightness.

Still further, Mendelson does not teach or suggest that setting the adjusted brightness control code includes setting a new brightness control code corresponding to the predetermined

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brightness, and the new brightness control code replacing the brightness control code provided by the display manufacturer.

For at least the reasons set forth above, Mendelson does not teach or suggest all the features of independent claim 28. Ichise does not teach or suggest the missing features of independent claim 28. Thus, independent claim 28 defines patentable subject matter.

Independent claim 36 recites adjusting the driving of the display until the display is driven at a predetermined brightness based on a result of the sensed brightness. Independent claim 36 also recites setting an adjusted brightness control code corresponding to the predetermined brightness. Independent claim 36 also recites repeating the driving, sensing, adjusting and setting a plurality of times to set a plurality of different brightness control codes corresponding to a plurality of different predetermined brightnesses of the display. Independent claim 36 further recites using one of the brightness control codes corresponding to a desired brightness level to drive the display at the desired brightness level.

For at least similar reasons as set forth above, Mendelson does not teach or suggest all the features of independent claim 36. Mendelson does not suggest setting an adjusted brightness control code corresponding to the predetermined brightness (and adjusting the driving until the display is driven at a predetermined brightness). Additionally, Mendelson does not teach or suggest repeating the driving, sensing, adjusting and setting a plurality of times to set a plurality of different brightness control codes corresponding to a plurality of different predetermined brightnesses of the display. Mendelson does not relate to the claimed plurality of different brightness control codes or plurality of different predetermined brightnesses. Ichise does not

teach or suggest the missing features of independent claim 36. Thus, independent claim 36 defines patentable subject matter.

For at least the reasons set forth above, each of independent claims 28 and 36 defines patentable subject matter. Each of the dependent claims depends from one of the independent claims and therefore defines patentable subject matter at least for this reason. In addition, the dependent claims recite features that further and independently distinguish over the applied references.

For example, dependent claim 47 recites setting the new brightness control code includes increasing by 1 the brightness control code provided by the display manufacturer. See also dependent claims 48 and 49. The Office Action cites Ichise's col. 5, line 17-col. 6, line 6 for these features. The Office Action then cites an example given at col. 5, lines 53-56. However, the example does not suggest "increasing by 1 the brightness control code" or "decreasing by 1 the brightness control code." Adjusting the brightness by 1% is not increasing/decreasing a brightness control code by 1. Mendelson and Ichise do not teach or suggest all the features of dependent claims 47-49. Thus, dependent claims 47-49 define patentable subject matter at least for this additional reason.

Additionally, dependent claim 40 recites the new brightness control code is provided in an EDID format. See also dependent claim 39. The Office Action (on page 7) references Mendelson's col. 9, line 66-col. 10, line 13. However, this cited section (and col. 13, lines 43-52) states that the monitor-specific reference profile is stored and that the EDID information is also stored. However, Mendelson does not suggest adjusting, changing or providing a new brightness

control code in the EDID information. The Office Action states, without any explicit basis, that new brightness control codes are provided in an EDID format. Mendelson does not teach or suggest all the features of dependent claim 40 (and similarly dependent claim 39). Thus, dependent claims 39-40 define patentable subject matter at least for this additional reason.

Still further, dependent claim 30 recites the driving, sensing, adjusting and setting are performed a plurality of times to set a plurality of different brightness control codes corresponding to a plurality of different predetermined brightnesses. Mendelson and Ichise do not teach or suggest these features for at least similar reasons as set forth above. Thus, dependent claim 30 defines patentable subject matter at least for this additional reason.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Favorable consideration and prompt allowance of claims 28, 30-41 and 47-50 are earnestly solicited. If the Examiner believes that any additional changes would place the application in better condition for allowance, the Examiner is invited to contact the undersigned attorney at the telephone number listed below.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this,

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concurrent and future replies, including extension of time fees, to Deposit Account 16-0607 and please credit any excess fees to such deposit account.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "David C. Oren".

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